Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method of analyzing a digital image channel comprising the steps of:

~~a) providing a digital image channel;~~

~~b)~~ extracting a signal from the digital image channel; and

~~c)~~ using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel.

2 (currently amended). The method as claimed in claim 1 wherein ~~step c)~~ said using further includes determining an estimated factor of interpolation.

3 (currently amended). ~~The method as claimed in claim 1~~ A method of analyzing a digital image channel comprising the steps of:

a) providing a digital image channel;

b) extracting a signal from the digital image channel; and

c) using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein the step b) of extracting a signal comprises extracting a signal related to differences between the values of neighboring pixels of the digital image channel.

4 (currently amended). ~~The method as claimed in claim 1~~ A method of analyzing a digital image channel comprising the steps of:

a) providing a digital image channel;

b) extracting a signal from the digital image channel; and

c) using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein the step c) of using the extracted signal comprises determining the periodicity of the extracted signal by computing a Fourier Transform signal of the extracted signal and looking for peaks in the Fourier Transform signal.

5 (currently amended). The method as claimed in claim 1 wherein ~~step c)~~ said using further includes determining the method of interpolation that was used to form the digital image channel.

6 (currently amended). ~~A~~ An image processing system for determining the interpolation attributes of a digital image channel, said system comprising:

means for extracting a signal from the digital image channel; and

means for using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel.

7 (original). The image processing system as claimed in claim 6 wherein said means for using the extracted signal further determines an estimated factor of interpolation.

8 (currently amended). ~~The image processing system as claimed in claim 6~~ An image processing system for determining the interpolation attributes of a digital image channel, said system comprising:

means for extracting a signal from the digital image channel; and

means for using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein said means for extracting a signal comprises means for extracting a signal related to differences between the values of neighboring pixels of the digital image channel.

9 (currently amended). ~~The image processing system as claimed in claim 6~~ An image processing system for determining the interpolation attributes of a digital image channel, said system comprising:

means for extracting a signal from the digital image channel; and

means for using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein said means for using the extracted signal comprises means for determining the periodicity of the extracted signal by computing a Fourier Transform signal of the extracted signal and looking for peaks in the Fourier Transform signal.

10 (original). The image processing system as claimed in claim 6 wherein said means for using the extracted signal determines the method of interpolation that was used to form the digital image channel.

11 (original). The image processing system as claimed in claim 6 further including means for sending a message to a user based on determining whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel.

12 (currently amended). The image processing system as claimed in claim 6 further including means for determining a subsequent image processing ~~channel~~ path based on whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel.

13 (new). The method as claimed in claim 1 wherein said extracting a signal comprises extracting a signal related to differences between the values of neighboring pixels of the digital image channel.

14 (new). The method as claimed in claim 1 wherein said using the extracted signal comprises determining the periodicity of the extracted signal

by computing a Fourier Transform signal of the extracted signal and looking for peaks in the Fourier Transform signal.

15 (new). The method of claim 1 wherein said using further comprises determining an interpolation procedure associated with said channel, when said channel is an interpolated digital image channel.

16 (new). A digital image analysis method comprising the steps of:

extracting a signal from a channel of a digital image; and

using the extracted signal to determine whether the channel is interpolated or non-interpolated.

17 (new). The method as claimed in claim 16 wherein said using further includes determining an estimated factor of interpolation.

18 (new). The method as claimed in claim 16 wherein said digital image has three channels.

19 (new). The method as claimed in claim 18 wherein said digital image has red, green, and blue channels.

20 (new). The method as claimed in claim 16 wherein said using further comprises determining whether said channel contains a periodicity corresponding to an interpolation factor.